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ABSTRACT

Previous research suggests that the mental and physical health of the Type B personality should be better than that of the Type A personality. To test this hypothesis, 81 university students responded to the Glass (1977) version of the Jenkins Activity Survey for college students which assessed perceived health status. The results showed that 54 percent of the Type A's perceived themselves to be in excellent health compared to 36 percent of the Type B's. In general, the Type A students perceived themselves to be in better health than did Type B students. While these data are at odds with the relative incidence of diseases in Type A's and B's, they may be consistent with certain patterns of behaviors which distinguish Type A's from Type B's. A treadmill study described by Balke, Grillo, Konecci, and Ruft (1954) reported that even though Type A and Type B subjects were matched for physical characteristics, Type A's worked closer to their level of endurance and expressed less fatigue than the Type B's. These two studies, taken together, suggest that the awareness of fatigue or physical illness is so threatening to Type A's that they cannot consciously acknowledge it. Further exploration is needed of possible differences in how Type A's and B's cognitively cope with various stressful situations and how these differences may affect their behavior and susceptibility to stress related diseases later in life. (KGB)

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Type A-B Behavior and Perceived Health Status

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Type A-B Behavior and Perceived Health Status

Friedman and Rosenman (1977) have identified a set of attitudes, emotional reactions, and behaviors they refer to as the Type A behavior pattern. What is particularly important about this pattern is that a growing number of research studies (Caffrey, 1970; Jenkins, 1966; Rosenman, et al., 1975; Wardwell & Bahnson, 1973) of both a prospective and retrospective nature have reported this pattern as a significant predictor of premature coronary heart disease and heart attacks. Type A individuals have been described as having a highly competitive achievement orientation, a constant sense of time urgency, an unrelenting drive, stereotyped thinking and action, and generally an aggressive, restless, and impatient manner. This contrasts with the Type B individual who is characterized by a low or moderate amount of only a few of the above traits (Nowack & Sassenrath, 1980).

In line with these data, several recent investigations have focused on the relationship between Type A behavior and stress related diseases, on the assumption that Type A's are less able to cope with stress than Type B's. For example, in a recent study conducted by Barton and Hicks (in press), on a representative sample of college students, it was found that the Type A students reported a higher incidence of infectious mononucleosis than the Type B students. It has also been demonstrated that Type A college students tend to sleep less (Hicks et al., 1979) and are twice

as likely to report sleep problems (Hicks & Pellegrini, 1982) as are Type B students. A study conducted by Hicks, Kilcourse, and Sinnott (1983) suggests that this stems in part from their increased caffeine consumption. In accordance with these results is the positive correlation between Type A behavior and self-estimates of tension and migraine headaches (Hicks & Campbell, 1983). Although a considerable amount of research has considered the relationship between Type A behaviors and specific aspects of physical illness, there is good reason to suspect that Type A behaviors are also related to general mental health, and a person's perceived health status. For instance, it has been demonstrated that Type A's are likely to be more anxious (Nowack & Sassenrath, 1980), more aggressive (Carver & Glass, 1978), more impulsive (Blumenthal, Mckee, Williams, & Harey, 1981), more neurotic (Lovalls & Pishkin, 1980), and more extrapunitive (Irvine, Lyle, & Allen, 1982) than Type B's.

Together these findings would suggest that the mental and physical health of the Type B personality should be better than that of the Type A personality. These findings are also in accordance with those of Somes, Garrity and Marx (1981) who found psychological disturbance scores, as measured by the Langer index, to be higher among Type A's rather than Type B's, and that Type A's seek, and hence experience more change which is related to both physical and mental illness. Collectively these studies and the substantial body of data which link Type A behavior to coronary heart disease

(e.g. see Glass, 1977a) suggest that relative to Type B's, Type A's should report poorer general health.

Method

To test this hypothesis we asked a group of 81 university students to respond to the Glass (1977a) version of the Jenkins Activity Survey for college students which included questions pertaining to their perceived health status. The Jenkins survey was scored using the system developed by Glass. Like Glass, Type A individuals were defined as Jenkins score ≥ 8 and Type B individuals as Jenkins score < 8.

Results

As seen in the table, the distribution of perceived health status

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Insert Table 1 about here.

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for the Type A and Type B Groups is in the opposite direction than that predicted by the research hypothesis ($\chi^2 = 5.51$, $p < .10$). The distribution of scores indicates that 54% of the Type A's perceived themselves to be in excellent health as opposed to 36% of the Type B's. In general, the Type A students perceived themselves to be in better health than the Type B students.

Discussion

While theses data are at odds with the relative incidence of diseases in Type A's and B's, they may be consistent with certain

patterns of behaviors which distinguish Type A's from Type B's. To explain, Glass (1977b), after a series of studies, has suggested that the Type A behavior pattern represents a coping style aimed at maintaining and asserting control over stressful aspects of the environment. Stated differently, the behaviors characteristic of Pattern A, such as extremes of competitive achievement striving, a sense of time urgency, and an easily aroused hostility, may be exhibited as a consequence of the continual struggle of Type A's to maintain control over their environment. Glass (1977b) further argues that this struggle should lead A's, when confronted by a threat to their sense of control, to increase their efforts to assert control. However, if these efforts meet with salient and repeated failure, then Type A's should give up and act helpless. In this regard, Glass (1977b) suggests that Type A behavior emerges in the presence of a specific set of eliciting conditions that threaten perceived environmental control. Thus, it appears that Type A behavior is a coping strategy for dealing with uncontrollable stress. As Glass (1977b) states it, Type A's "enhanced performance reflects an attempt to assert and maintain control after its loss has been threatened."

Put differently, the Type A individual is one who believes that with sufficient effort, he can overcome any obstacle (Friedman, 1969). This thought has lead to the hypothesis that Type A's might suppress or deny feelings of fatigue to a greater extent than Type B's, in order to maintain their attempts at mastering a difficult

task (Carver, Coleman, & Glass, 1976). Perhaps one of the classic illustrations of Type A's denial of fatigue was described by Balke, Grillo, Konecci and Luft (1954). In this study, Type A and Type B subjects were required to walk continously on a motorized treadmill at increasingly sharp angles. While completing the treadmill test, subjects were required to rate their feelings of fatigue on an 11-point scale at 2-minute intervals. Each subject also completed another treadmill test that was designed to assess maximum rate of oxygen consumption or aerobic capacity. Although the Type A and Type B subjects were matched in regards to physical characteristics, the Type A subjects reached an oxygen absorption rate of 91.4% of their maximum capacities, compared to 82.8% for the Type B sbujects. Even as the Type A's worked close to their level of endurance, they expressed less overall fatigue than the Type B's. The Type A's rated their level of fatigue as significantly lower than the Type B's on each of the last four treadmill ratings. Compared to the TypeB's, the Type A's also expressed less overall fatigue for the entire treadmill session (means= 6.2 and 5.2, $p < .04$). As Glass (1977b) explains it, this tendency toward "fatigue suppression," or at least "public denial of fatigue," can be expalined in light of the competitive achievement striving of the Type A person. This defence mechanism that wards off the acknowledgement of potentially threatening stimuli aids the Type A person in his struggle for the attainment of desired goals. The goal, in this case, was

the Type A's superior treadmill performance. This failure of Type A's to acknowledge physical vulnerability is also seen in our group's data. It will be remembered that in our study 54% of the Type A's perceived themselves to be in excellent health as opposed to 36% of the Type B's. In general, the Type A students perceived themselves to be in better health than the Type B students, even though, as Hicks' studies (e.g. see Hicks & Campbell, 1983; Hicks & Pellegrini, 1982; Hicks, et al., 1979) have shown, they tend to report greater incidences of stress related diseases, such as allergies, insomnia, tension,and migraine headaches. Theses two studies, taken together, suggest that the awareness of fatigue or, in the case of our group's data, physical illness is so threatening to Type A's attempts to attain desired goals that they can not even bear to consciously acknowledge it. This finding is consistent with other studies. For example, Pittner and Houston (1980) conducted a study on Type A and Type B individuals to determine how they cognitively cope with psychophysiological arousal in threat to self-esteem and threat of shock conditions. Not only did they find that Type A subjects manifested higher pulse rates and blood pressures across all conditions, they also found that the Type A subjects employed more suppression and denial to both threat to self-esteem and threat of shock than did the Type B subjects. This evidence is also in line with those of Somes et al. (1981) who found that extreme Type A subjects as a group showed no association between reported recent life changes and subsequent reports of

physical illness, whereas there was a significant association in subjects without the Type A pattern. The results of these studies tend to confirm the view of Irvine et al. (1982) and others who see the Type A individual as an unfortunate person who is unable to cope effectively with the stresses of everday life and , as a result, has to turn to the excessive use of psychological defence mechanisms to ward off stimuli that threatens his psychological vulnerability. This ineffectual coping strategy can lead to an eventual deterioration in mental and physical health that takes its toll later in life.

As seen from the data presented, Type A individuals are more likely to consciously try to suppress thinking about the aversive aspects of a stressful situation. Further, the results suggest that in a situation that is particularly threatening to Type A's sense of self-esteem, such as the acknowledgement of physical vulnerability, Type A's tend to employ more denial in the situation and experience less subjective distress than Type B's. The difference found between Type A's and B's in their use of denial accounts to some extent for the Type A's experience of less subjective distress relative to their high level of pschophysiological arousal. An implication of the tendency by Type A individuals to use more denial is that it may cause them to endure longer and higher levels of stress that could ultimately have adverse effects on their cardiovascular systems. In addition, as Pittner and Houston (1980) have suggested, this tendency to deny negative features of experience may delay Type A

individuals from seeking and/or following medical treatment for early symptoms of coronary heart disease. Therefore, further exploration is needed of possible differences between Type A and B individuals in how they cognitively cope with various stressful situations and how these differences may affect the behavior of Type A and B individuals in their susceptibility to stress related diseases later in life.

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Table 1

Frequency Scores of Reported Perceived Health of the Type A and B Groups

Group	Excellent	Good	Fair
Type A (f)	21	18	0
Type B (f)	15	23	4